Target Practice Topic #1

Cell Theory and Prokaryote vs. Eukaryote

1. What are the three parts of the Cell Theory?  
    a.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

b. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

c. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. List the contributions of the following scientists involved in the development of the cell theory: Hooke, Leuwenhooke, Schwaan, Schleiden, Virchow

|  |  |
| --- | --- |
| **Scientist** | **Contribution** |
| Hooke |  |
| Leuwenhooke |  |
| Schwaan |  |
| Schleiden |  |
| Virchow |  |

1. Why do researchers and scientist use scanning electron microscopes?
2. Why do researchers and scientist use transmission electron microscopes?
3. Fill in the chart comparing and contrasting Prokaryote vs. Eukaryote

|  |  |  |
| --- | --- | --- |
| Description | Prokaryote | Eukaryote |
| Overall Size (Big or Small) |  |  |
| Examples (Organisms) |  |  |
| Nucleus (Yes or No) |  |  |
| Key organelles |  |  |
| Complexity |  |  |
| Membrane-bound organelles (Yes or NO) |  |  |